

| | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 5' | CAG | AGG | CTT | GTG | TGC | TGA | GGG | CTG | TGC | GGC | AGC | TGC | GGC | TGC | TGG | TTC | 54 |
| 9 | | 18 | | | 27 | | | | | 36 | | | 45 | | | | 54 |
| 63 | | 72 | | | 81 | | | | | 90 | | | 99 | | | | 108 |
| TGA | AAC | ATG | AAT | CTT | TCG | CTC | GTC | CTG | GCT | GCC | TTT | TGC | TTG | GGA | ATA | GCC | TCC |
| M | N | L | S | L | V | L | A | A | F | C | L | G | I | A | S | | |
| 117 | | 126 | | | 135 | | | | | 144 | | | 153 | | | | 162 |
| GCT | GTT | CCA | AAA | TTT | GAC | CAA | AAT | TTG | GAT | ACA | AAG | TGG | TAC | CAG | TGG | AAG | GCA |
| A | V | P | K | F | D | Q | N | L | D | T | K | W | Y | Q | W | K | A |
| 171 | | 180 | | | 189 | | | | | 198 | | | 207 | | | | 216 |
| ACA | CAC | AGA | AGA | TTA | TAT | GGC | GCG | AAT | GAA | GAA | GGA | TGG | AGG | AGA | GCA | GTG | TGG |
| T | H | R | R | L | Y | G | A | N | E | E | G | W | R | R | A | V | W |
| 225 | | 234 | | | 243 | | | | | 252 | | | 261 | | | | 270 |
| GAA | AAG | AAT | ATG | AAA | ATG | ATT | GAA | CTG | CAC | AAT | GGG | GAA | TAC | AGC | CAA | GGG | AAA |
| E | K | N | M | K | M | I | E | L | H | N | G | E | Y | S | Q | G | K |
| 279 | | 288 | | | 297 | | | | | 306 | | | 315 | | | | 324 |
| CTT | GGC | TTC | ACA | ATG | GCC | ATG | AAT | GCT | TTT | GGT | GAC | ATG | ACC | AAT | GAA | GAA | TTC |
| L | G | F | T | M | A | M | N | A | F | G | D | M | T | N | E | E | F |
| 333 | | 342 | | | 351 | | | | | 360 | | | 369 | | | | 378 |
| AGG | CAG | ATG | ATG | GGT | TGC | TTT | CGA | AAC | CAG | AAA | TTC | AGG | AAG | GGG | AAA | GTG | TTC |
| R | Q | M | M | G | C | F | R | N | Q | K | F | R | K | G | K | V | F |

FIGURE 1A

| | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 387 | CGT | GAG | CCT | CTG | TTT | CTT | GAT | CTT | CCC | AAA | TCT | GTG | GAT | TGG | AGA | AAG | AAA | GGC |
| R | E | P | L | F | L | D | L | P | K | S | V | D | W | R | K | K | G | |
| 441 | TAC | GTG | ACG | CCA | GTG | AAG | AAT | CAG | AAA | CAG | TGT | GGT | TCT | TGT | TGG | GCT | TTT | AGT |
| Y | V | T | P | V | K | N | Q | K | Q | C | G | S | C | W | A | F | S | |
| 495 | GCG | ACT | GGT | GCT | CTT | GAA | GGA | CAG | ATG | TTC | CGG | AAA | ACT | GGG | AAA | CTT | GTC | TCA |
| A | T | G | A | L | E | G | Q | M | F | R | K | T | G | K | L | V | S | |
| 549 | CTG | AGC | GAG | CAG | AAT | CTG | GTG | GAC | TGT | TGG | CGT | CCT | CAA | GGC | AAT | CAG | GGC | TGC |
| L | S | E | Q | N | L | V | D | C | S | R | P | Q | G | N | Q | G | C | |
| 603 | AAT | GGT | GGC | TTC | ATG | GCT | AGG | GCC | TTC | CAG | TAT | GTC | AAG | GAG | AAC | GGA | GGC | CTG |
| N | G | G | F | M | A | R | A | F | Q | Y | V | K | E | N | G | G | L | |
| 657 | GAC | TCT | GAG | GAA | TCC | TAT | CCA | TAT | GTA | GCA | GTG | GAT | GAA | ATC | TGT | AAG | TAC | AGA |
| D | S | E | E | S | Y | P | Y | V | A | V | D | E | I | C | K | Y | R | |

FIGURE 1B

| | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|-----|------|-----|------|-----|
| CCT | GAG | AAT | TCT | GTT | AAT | GAC | ACT | GGC | TTC | ACA | ATG | GTC | GCA | CCT | GGA | AAG | |
| P | E | N | S | V | A | N | D | T | G | F | T | M | V | A | P | G | K |
| E | K | A | L | M | K | A | V | A | T | V | G | P | I | S | V | A | M |
| 765 | | 774 | | 783 | | | | | | | | 792 | | 801 | | 810 | |
| GAG | AAG | GCC | CTG | ATG | AAA | GCA | GTC | GCA | ACT | GTG | GGG | CCC | ATC | TCC | GTT | GCT | ATG |
| D | A | G | H | S | S | F | Q | F | Y | K | S | G | I | Y | F | E | P |
| 819 | | 828 | | 837 | | | | | | | | 846 | | 855 | | 864 | |
| GAT | GCA | GGC | CAT | TCG | TCC | TTC | CAG | TTC | TAC | AAA | TCA | GGC | ATT | TAT | TTT | GAA | CCA |
| D | A | G | H | S | S | F | Q | F | Y | K | S | G | I | Y | F | E | P |
| 873 | | 882 | | 891 | | | | | | | | 900 | | 909 | | 918 | |
| GAC | TGC | AGC | AGC | AAA | AAC | CTG | GAT | CAT | GGT | GTT | CTG | GTG | GTC | GGC | TAC | GGC | TTT |
| D | C | S | S | K | N | L | D | H | G | V | L | V | V | G | Y | G | F |
| 927 | | 936 | | 945 | | | | | | | | 954 | | 963 | | 972 | |
| GAA | GGA | GCA | AAT | TCG | AAT | AAC | AGC | AAG | TAT | TGG | CTC | GTC | AAA | AAC | AGC | TGG | GGT |
| E | G | A | N | S | N | N | S | K | Y | W | L | V | K | N | S | W | G |
| 981 | | 990 | | 999 | | | | | | | | 1008 | | 1017 | | 1026 | |
| CCA | GAA | TGG | GGC | TCG | AAT | GGC | TAT | GTA | AAA | ATA | GCC | AAA | GAC | AAG | AAC | AAC | CAC |
| P | E | W | G | S | N | G | Y | V | K | I | A | D | K | N | N | H | |

FIGURE 1C

| | | | | | | | | | | | | | | | | | |
|------|------|-----|------|-----|-----|-----|-----|------|-----|-----|-----|------|-----|-----|-----|------|-----|
| TGT | GGA | ATC | GCC | ACA | GCA | GCC | AGC | TAC | CCC | AAT | GTG | TGA | GCT | GAT | GGA | TGG | TGA |
| C | G | I | A | T | A | A | S | Y | P | N | V | | | | | | |
| 1035 | 1044 | | 1053 | | | | | 1062 | | | | 1071 | | | | 1080 | |
| 1089 | 1098 | | 1107 | | | | | 1116 | | | | 1125 | | | | 1134 | |
| GGA | GGA | AGG | ACT | TAA | GGG | CAG | CAT | GTC | TGG | GGA | AAT | TTT | ATC | TTG | AAA | CTG | ACC |
| AAA | CGC | TTA | TTG | TGT | AAG | ATA | AAC | CAG | TTG | AAT | CAT | GGA | GGA | TCC | AAG | TTG | AGA |
| 1143 | 1152 | | 1161 | | | | | 1170 | | | | 1179 | | | | 1188 | |
| 1197 | 1206 | | 1215 | | | | | 1224 | | | | 1233 | | | | 1242 | |
| TTT | TAA | TTC | TGT | GAC | ATT | TTT | ACA | AGG | GTA | AAA | TGT | TAC | CAC | TAC | TTT | AAT | TAT |
| 1251 | 1260 | | 1269 | | | | | 1278 | | | | 1287 | | | | 1296 | |
| TGT | TAT | ACA | CAG | CTT | TAT | GAT | ATC | AAA | GAC | TCA | TGT | CTT | AAT | TCT | AAG | ACT | TTT |
| 1305 | 1314 | | 1323 | | | | | 1332 | | | | 1341 | | | | 1350 | |
| GAA | TTT | TCA | TTT | TTT | AAA | AAG | ATG | TAC | AAA | ACA | GTG | TGA | AAT | AAA | TTT | TAA | TTC |
| 1359 | | | | | | | | | | | | | | | | | |
| GTA | TAT | AAA | AAA | AAA | AA | 3' | | | | | | | | | | | |

FIGURE 1D

1 M N L S I V L A A F C L G I A S A V P K F D Q N L D T K W Y Q O W K A T H R R L Y 347021
1 M N P T L I L A A F C L G I A S A T L T F D H S L E A Q W T K W K A M H N R L Y GI 29715
1 M K P S I L F L T A L C L G I A S A A P K L D Q N L D A D W Y K W K A T H G R L Y GI 1468964

41 G A N E E G W R R A V W E K N M K M I E L H N G E Y S Q G K L G F T M A M N A F 347021
41 G M N E E G W R R A V W E K N M K M I E L H N Q E Y R E G K H S F T M A M N A F GI 29715
41 G M N E E G W R R A V W E K N M K M I E L H N Q E Y S Q G K H G F S M A M N A F GI 1468964

81 G D M T N E E F R Q M M G C F R N Q K F R K G K V F R E P L F L D L P K S V D W 347021
81 G D M T S E E F R Q V M N G F Q N R K P R K G K V F Q E P L F Y E A P R S V D W GI 29715
81 G D M T N E E F R Q V M N G F Q N Q K H K K G K V F H E S L V L E V P K S V D W GI 1468964

121 R K K G Y V T P V K N Q K Q C G S C W A F S A T G A L E G Q M F R K T G K L V S 347021
121 R E K G Y V T P V K N Q G Q C G S C W A F S A T G A L E G Q M F R K T G R L I S GI 29715
121 R E K G Y V T A V K N Q G Q C G S C W A F S A T G A L E G Q M F R K T G K L V S GI 1468964

161 L S E Q N L V D C S R P Q G N Q G C N G G F M A R A F Q Y V K E N G G L D S E E 347021
161 L S E Q N L V D C S G P Q G N E G C N G G L M D Y A F Q Y V Q D N G G L D S E E GI 29715
161 L S E Q N L V D C S R P Q G N Q G C N G G L M D N A F Q Y V K D N G G L D T E E GI 1468964

FIGURE 2A

201 S Y P Y V A V D - E I C K Y R P E N S V A N D T G F T M V A P G K E K A L M K A 347021
201 S Y P Y E A T E - E S C K Y N P K Y S V A N D T G F V D I - P K Q E K A L M K A GI 29715
201 S Y P Y L G R E T N S C T Y K P E C S A A N D T G F V D I - P Q R E K A L M K A GI 1468964

240 V A T V G P I S V A M D A G H S S F Q F Y K S G I Y F E P D C S S K N L D H G V 347021
239 V A T V G P I S V A I D A G H E S F I F Y K E G I Y F E P D C S S E D M D H G V GI 29715
240 V A T V G P I S V A I D A G H S S F Q F Y K S G I Y Y D P D C S S K D L D H G V GI 1468964

280 L V V G Y G F E G A N S N N S K Y W L V K N S W G P E W G S N G Y V K I A K D K 347021
279 L V V G Y G F E S T E S D N N K Y W L V K N S W G E E W G M G G Y V K M A K D R GI 29715
280 L V V G Y G F E G T D S N S S K F W I V K N S W G P E W G W N G Y V K M A K D Q GI 1468964

320 N N H C G I A T A A S Y P N V 347021
319 R N H C G I A S A A S Y P T V GI 29715
320 N N H C G I S T A A S Y P T V GI 1468964

FIGURE 2B